CAPSULE SUMMARY OF ACTIVE TASKS

JANUARY 1, 2005

UNITED STATES MEMBER STATE SUPPORT PROGRAM TO IAEA SAFEGUARDS

DEPARTMENT OF ENERGY
DEPARTMENT OF STATE
NUCLEAR REGULATORY COMMISSION
DEPARTMENT OF DEFENSE

INTERNATIONAL SAFEGUARDS PROJECT OFFICE BROOKHAVEN NATIONAL LABORATORY UPTON, LONG ISLAND, NEW YORK 11973

Currently Active Tasks

			ouriently Active Tasks			
		Title				
TaskID A.116	Subtas	[Agency# / Task Officer] Field Support Instruments and Techniques [USA A 931 / G. Bosler]	Organizatio	Total Budget	Total Spent Comments	
			ORNL	\$171,491.00	\$154,752.00	
					There has been no activity reported for this quarter.	
	A.116.47	•	LANL	\$1,916,100.00	\$1,838,200.00	
					A.116.68 - Assistance to the IAEA on the Large Neutron Mu Counter for KAMS - There has been no activity reported for	
					A.116.76 - KAMS Software Development - There has been reported for this quarter.	no activity
	A.116.58	(LLNL	\$143,000.00	\$142,396.12	
					High Purity Mechanically Cooled Ge Detector - The LLNL electrically-cooled Ge detector was tested extensively by the evaluation report was sent to Wayne Ruhter (LLNL) and he additional tests, which will be performed in January.	
	A.116.83	F	LANL	\$288,000.00	\$176,650.00	
					Cascade Header Enrichment Monitor (CHEM) - LANL receivabout the IAEA's recent unsuccessful implementation of the software at the Rokkasho Enrichment Plant. LANL is analyz software to address the problems. The problem may be due in sending the latest version of the software to the IAEA, du LANL suspension in July/August 2004, which caused the IA previous version of the software. LANL will work with the Interest the situation.	CHEM zing the e to the delay ie to the EA to use a
A.202		Separation of Plutonium Isotopes for the Pl High Purity Spike Reference Materials	roduction of			
		[USA A 909 / D. Donohue]	NDI	A70 000 00	#F0 00F 00	
			NBL	\$79,000.00	\$56,205.00	
					Progress was made in completing the Memorandum of Und (MOU) between the IAEA and DOE for the supply of feed m for separation of high purity Pu-244. The State Department agreed to accept the Russian assurances for security of the material. The MOU awaits the signature of the Secretary of his designate.	aterial FP-33 and DOE feed
			ORNL	\$72,000.00	\$41,411.00	
					There has been no activity reported for this quarter.	
	A.202		LANL	\$17,100.00	\$17,100.00	
					There has been no activity reported for this quarter.	

TaskID A.218	Subtas	Title [Agency# / Task Officer] Controlled Potential Coulometry of 1 mg Pu wit Coulometer [USA A 1049 / P. Doherty]	Organizatio th SRL	Total Budget	Total Spent Comments
		[65,77,75,67,7,25,16,1,5]	NBL	\$75,000.00	\$72,671.00 The final report on the effects of impurities on plutonium assay determinations will be issued in January 2005.
			SRNL	\$309,406.00	•
A.223		Technical Support to the Clean Laboratory [USA A 1081 / D. Donohue]			
	A.223.09		LANL	\$107,000.00	\$0.00 The SSTS approved funding at its December 2, 2004, meeting for LAN to provide clean laboratory training to a chemistry technician who had joined the staff of the Safeguards Analytical Laboratory recently and to provide refresher training to an experienced staff member. The technician will be given a daily lecture, a set of documents to supplement the lecture, and demonstrations of the protocols and procedures discussed in the lectures. The SSTS approved two weeks of follow-up instruction in Vienna at LANL's suggestion, which will allow the technician to practice the procedures learned at LANL on SA equipment, under the guidance of LANL experts.
A.227		BN-350 Hot Cell Transfer Monitor [USA A 1103 / T. Pochet]			
		[DSA A TIOS / T. Pochet]	Aquila	\$184,500.00	\$186,249.00 This task is on stand by.
			LANL	\$663,213.00	\$663,213.00 This task is on stand by.
A.233		NDA Verification Techniques for BRN Enrichme Plant [USA A 1157 / E. Gryntakis]	ORNL	\$561,870.00	\$561,870.00 This task is on stand by.

Monday, February 07, 2005 Page 2 of 44

TaskID A.241	Subtas	Title [Agency# / Task Officer] Development of Integrated Review Software for	Organizatio	Total Budget	Total Spent	Comments
/ 112 11		[USA A 1238 / M. Schanfein]				
		•	LANL	\$402,000.00	\$319,542.00	
					M t "I S d IA	ANL delivered the document entitled: "Integrated Review Software: flanager and Generic Component Interface Specification" to the IAEA at the end of October 2004. LANL updated the document entitled: ntegrated Review Software: LANL Import Component Interface Design specification," with the exception of the latest information for newly elivered Import COM modules. This information was delivered to the AEA on December 1, 2004, in the UNARM Baseline 1, Revision 0 elease.
	A.241.01		LANL	\$168,870.00	\$19,500.00	
					d th b th li	doption of OPD Data into Generic Software - LANL received operator eclarations from IAEA Operations A and B. LANL began evaluating ne use of a parsing tool to read in the operator declarations. LANL egan defining the software functions (referred to as "use cases"), nereby initiating the Operator Review project plan that had been defined ast quarter. The project's principal investigator is now John Determan LANL).
	A.241.02		LANL	\$123,000.00	\$0.00	
					D m S	rototype Analysis Module - The SSTS approved funding at its eccember 2, 2004, meeting for LANL to develop a prototype analysis nodule to test the new architecture design for the Integrated Review oftware, and to use it as a model for all other analysis modules eveloped for the new version of the Radiation Review software.
	A.241.03		LANL	\$27,000.00	\$0.00	
					D tr t	replementation of VIFM Analysis - The SSTS approved funding at its december 2, 2004, meeting for LANL to assist the IAEA in integrating the VIFM analysis module into Radiation Review. This will demonstrate the incorporation of third-party software into the new COM-based integrated Review Software.
	A.241.04		LANL	\$74,000.00	\$0.00	
					fu Ci	RS Upper Layer Redesign, Standardization - The SSTS approved unding at its December 2, 2004, meeting for LANL to redesign the IRS ommunication software to create a plug-in library that is more robust and flexible.

Monday, February 07, 2005 ^{4Q} Page 3 of 44

TaskID A.242	Subtas	Title [Agency# / Task Officer] Evaluation of Miniature GRAND Electro [USA A 1239 / G. Bosler]	Organizatio onic Unit	Total Budget	Total Spent	Comments
			LANL	\$246,100.00	\$246,100.0	0
	A.242.02		LANL	\$220,000.00	\$206,889.0	0
						$\label{lem:minigrand} \mbox{MiniGRAND Commercialization - There has been no activity reported for this quarter.}$
	A.242.06		LANL	\$630,000.00	\$473,130.0	0
						MiniGRAND Microprocessor Board Upgrade - The SSTS approved additional funding at its December 2, 2004, meeting for LANL to complete the microprocessor board upgrade to meet an IAEA deadline in February 2005.
A.243		Enhanced Efficiency for Thermal Ioniza	ation of U and			
		[USA A 1268 / M. Hedberg]				
			ORNL	\$958,000.00	\$945,885.0	0
						ORNL delivered a draft of the final report to the IAEA for review and comment, prior to finalizing the report.

Monday, February 07, 2005 ^{4Q} Page 4 of 44

TaskID A.247	Title Subtas [Agency# / Task Officer] Support for the Development of the SG Syste Rokkasho Reprocessing Plant [USA A 1351 / S. Johnson]	Organizatio em at	Total Budget	Total Spent Comments
	A.247.05	LANL	\$699,000.00	\$656,570.00
		2.112	\$600 ,000.00	RRP Integration of Inspection Equipment - LANL issued the report on the RHMS calibration exercise (LA-UR-04-5604). Work continues on the VCAS preamplifiers. Most of the channels on the most recently modified amplifiers worked successfully, but all had different gain values. This could cause difficulty if an amplifier had to be replaced with a spare. Therefore, the preamplifiers have been returned to the manufacturer to standardize the gain of all the channels to the optimum value. The measurements with a californium source agree with the Monte Carlo calculated efficiency.
	A.247.06	LANL	\$988,000.00	\$979,878.00
				RRP Software for NDA and Data Collection - The IAEA issued requests for further work on this topic, as an outcome of the August 2004 meeting at LANL with the IAEA, ISPO, and LANL staff. The requests and the subsequently approved work were reclassified under other tasks and subtasks, including POTAS A.241: Development of Integrated Review Software for UMS, A.247: RRP Software for NDA and Data Collection, and E.122: URM Systems Standardization. This subtask is closed.
	A.247.07	LANL	\$54,000.00	\$46,073.00
				RRP Monitoring of Shielded MOX Canisters - LANL performed further Monte Carlo calculations to determine the maximum amount of information available from the neutron monitor in the storage areas. LANL plans to complete and issue the final report during the next
	A.247.09	LANL	\$144,000.00	\$115,631.00
				RRP Project Coordination - The SSTS approved partial funding by phone poll in November for Martyn Swinhoe (LANL) to continue project coordination for the LANL RRP projects for another year.
	A.247.11	LANL	\$8,200.00	\$8,200.00
				Curium Balancing - This task is on stand by.
	A.247.12	LANL	\$37,106.00	\$38,000.00
				Conceptual Design of a Temporary Canister Verification System (TCVS) at RRP - LANL issued a report on the conceptual design of this system entitled: "Conceptual Design of Temporary Canister Verification System" (ISPO-512, LA-UR-04-1189) in June. The IAEA is considering the follow-on effort for the system. This task is on stand by.

Monday, February 07, 2005 ⁴Q Page 5 of 44

	Title				
TaskID	Subtas [Agency# / Task Officer] A.247.13	Organizatio	Total Budget \$752,709.00	Total Spent \$109,277.00	Comments
			,	RRP Your Devel accep comp two s reque decla docu prepa	Integrated Inspector Information System (I3S) - Cap Gemini Ernst & ng (CGE&Y) submitted all deliverables of the project "I3S lopment" (renamed "I3S Infrastructure and ASAS") to the IAEA for plance testing and review. The component level testing has been eleted and was successful, except for minor clarifications within sub-components. CGE&Y has completed the ASAS change est and delivered the source code for the operator provided rations (OPD) component change request. CGE&Y's update of the mentation is scheduled to be complete in mid-January. The IAEA ared the system level acceptance test concept. Formal final IAEA plance of the deliverables has been rescheduled for January 2005.
	A.247.15	IAEA	\$346,000.00	\$53,991.00	
				Contr the m BNFL install suppo an Er Softw contir NRTA 13. A They The ir Requ discus Versic delive	Integrated Inspector Information System (I3S) Technical Support ract - Jan Wuester (AWST) supported the I3S project manager in ranagement of software development contracts with EURIWARE,, and Cap Gemini, by participating in a three-week software lation at the RRP site and by preparing for, and by providing ort during, an internal QA audit of the I3S project. AWST delivered nitty Relationship Document to the IAEA on November 22. The rare Development Plan was finalized on December 3. AWST nued refining the user requirements. An updated version of the A Subsystem Requirement Specification was released on October AWST delivered four prototype NRTA web pages in November. delivered a draft Software Design Document on December 10. Implementation of the definitive GUI began and is ongoing. A User irrements Document for the NDAR subsystem was drafted and seed extensively with users at the IAEA and experts at LANL. on 1.1 of the NDAR User Requirements Specification was ered on November 30. T's contract with the IAEA that was funded by the USSP ended on mber 15. As of that date, the IAEA placed a contract with AWST intinued support using regular budget funds. This subtask is lete.
	A.247.16	LANL	\$44,000.00	appro which the us supp	Software Assessment for RRP NDA Applications - The SSTS oved funding by phone poll in November for LANL to determine a analysis modules (not already in IRS) would be required to fulfill ser requirements of the IAEA's NDA review software for RRP and to ort a subset of the IRS for initial testing and calibration of uards systems at RRP.
	A.247.17	TBD	\$42,000.00	\$0.00	

<i>-</i> 1.75	Title			T	
TaskID	Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
A.248	Gate Monitor at LWRs Loaded with MOX	Assemblies			
	[JNT USA A 1356 / T. Pochet]				
		LANL	\$286,000.00	\$277,830.00)
					LANL's report entitled: "On Determining Direction of Motion in Under Water Monitors" (ISPO-515, LA-UR-04-68132) was distributed. IAEA will review and determine if further analysis is needed.
A.249	Development of Data Review Software E Neural Networks	Based on			
	[JNT D 1332 / G. Rengarajan]				
		LANL	\$0.00	\$0.00	
					This task is on stand by.
A.250	Enhanced ANM Capability for HKED Sof	tware at SAL			
	[USA A 1369 / N. Doubek]				
	A.250.01	LANL	\$165,000.00	\$159,009.00	
					There was no activity scheduled for this quarter.
A.251	Expert - Instrumentation Systems				
	[USA E 1372 / M. Aparo]				
		CFE	\$362,000.00	\$268,516.00	
					The expert James Halbig traveled to Chernobyl to perform measurements on the Unit 4 reactor hall. Radiation levels and spectra

The expert James Halbig traveled to Chernobyl to perform measurements on the Unit 4 reactor hall. Radiation levels and spectra were established. Results of background radiation measurements were favorable in installation areas. Dr. Halbig performed maintenance on two GRAND-3 units. The initial design of the external bus interface firmware for the new master processor board was produced and sent to LANL for compilation and testing. The BN-350 maintenance trip focused on the installation of new hardware, State-of-Health transmission, and the correction of a safety issue. The IAEA is receiving State-of-Health information from the facility. Baseline 1 review software was installed on the inspector's laptop for compatibility with the new IRS software.

TaskID Subta A.252	Title s [Agency# / Task Officer] Field Support and Implementation [USA A 931 / G. Bosler]	Organizatio	Total Budget	Total Spent Comments
A.252.0	5	LANL	\$60,000.00	\$57,348.00 Training Support for TRP - There has been no activity reported for this quarter.
A.252.0	8	BNL/NCT	\$55,000.00	\$13,682.00 Downblending at Ulba - There has been no activity reported for this quarter.
A.252.0	9	ORNL	\$25,000.00	\$7,821.00 IQ3 Detector - A working group meeting on implementation of measurements of low enriched uranium (LEU) contained in waste drums at Pelindaba was held in Vienna from November 10 to 11, 2004. Participants included representatives from the IAEA, South Africa, and ORNL. A plan was devised that would enable the IAEA to verify and validate South African higher-density LEU inventory declarations using the IQ3 Drum Waste Assay Scanner at PelStore. The South Africans have begun the measurement of approximately 24,000 drums containing LEU and some are ready for declaration.
A.252.1	0	BNL/NCT	\$75,000.00	\$66,378.00 Neutron Camera - The image processing algorithms for analyzing the data from the thermal neutron imagining system were refined by choosing a bin size corresponding to a quarter of a mask pixel. This method allows smoother anti-aliased images to be generated, while maintaining reasonable counting statistics in an individual pixel. An automated routine was created to normalize the raw data for spatial variations in detector sensitivity and to combine a mask shawdowgram with an anti-mask shawdowgram to create a single composite image. The improved programs were applied to all the data files from the INEEL measurement campaign, in preparation for writing a final report.
A.252.1	0	INEEL	\$24,008.00	\$0.00 There has been no activity reported for this quarter.
A.252.1	0	LLNL	\$81,000.00	\$40,105.46 Gamma Camera - A report detailing the results of the measurements is in progress.
A.252.1	2	KCP	\$568,625.00	\$0.00 The SSTS approved funding in October in the amount of \$480,000 for KCP to provide 200 T-1 seals for use in securing additional nuclear material at KAMS. Interest that accrued in IAEA accounts for equipment funds was transferred to the IAEA's POTAS account to fund this transaction. The first seals will be delivered in May.
A.252.1		IAEA	\$10,000.00	\$10,500.00 The Agency received the prototype preamps. The Agency is performing tests on them and is pleased with their performance. The 0.5-inch diameter preamps will be useful in a variety of applications.

	Title				
TaskID	Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
	A.252.14	LANL	\$146,000.00	\$63,800.00	
				fu th N F E C C is n is s	DMS and RR Codes - The initial integration of FDMS is developed and unctioning. FDMS matches selected events by time or location across he various UNARM tools (INCC, RAD, DVR and POSR). The finiGRAND data import and analysis code was designed in September, and is in implementation. The primary resource for the Radiation every software work is available, with delivery of the related UNARM baseline 1 project on December 1st. Necessary software components reated for the UNARM Baseline 1 release are required for the FDMS integration and are available for use. The specific software changes eeded for Radiation Review have been designed. Shirley Klosterbuer implementing those changes. LANL anticipates the majority of the oftware development work to be completed shortly, with testing and ocumentation to follow.
	A.252.15	LANL	\$48,000.00	\$45,400.00	
					Ipgrade VWCC at Tokai - There has been no activity reported for this uarter.
	A.252.16	LANL	\$41,000.00	\$18,200.00	
					tecalibration of HMSS - LANL is preparing the final report, which is xpected to be completed and issued in the first quarter of 2005.
	A.252.17	LANL	\$22,000.00	\$200.00	
				J n	lew technical information about the materials to be measured in the oyo hot cell and facility conditions suggest that measurements can be nade with an available fork detector or another detector at the VIC. All or not his task was stopped, based on this information.

Monday, February 07, 2005 ^{4Q} Page 9 of 44

TaskID A.253	Title Subtas [Agency# / Task Officer] Expert - Specifications of Data Collection and Evaluation Software for RRP (P4) [USA A 1398 / S. Johnson]	Organizatio I	Total Budget	Total Spent Comments
		CFE	\$378,200.00	The expert Joseph Damico led the team that installed the Integrated Inspector Information System (I3S) hardware at RRP. All servers are installed and working. The current version of the I3S software was installed and used to confirm the correct configuration of the complete infrastructure. Installation and testing of I3S Release 1 software is planned for March 2005 at RRP. The NDA Review (NDAR) effort is proceeding. The NDAR user requirements document was released and is under review. Mr. Damico has been coordinating NDAR-related LANL work with SGTS. The NDAR design contract has been submitted to procurement. Mr. Damico drafted user requirements for the I3S Surveillance Review Subsystem (SURS). The SURS procurement has been initiated. The project for the Plutonium Inventory Management System (PIMS) was started. Mr. Damico and the I3S team are providing technical leadership. The requirements analysis for Release 2 of the I3S software is ongoing. PIMS and SURS will be integrated with Version 1.0 of the I3S. NDAR will be integrated with Release 2. The development phase of the I3S software development contract with Cap Gemini (CGE&Y) is nearly completed. All software components and change requests have been delivered. The component test is nearly finished. The system test concept is being finalized. Acceptance testing should be complete by mid-January 2005. The support phase is complete.
A.256	Evaluation Software for HKED Spectral Analy the Joint IAEA/JSGO On Site Analytical Labo the Rokkasho Reprocessing Plant [USA A 1420 / G. Duhamel]			
	-	LANL	\$160,000.00	\$154,960.00 There was no activity scheduled for this quarter.
A.257	Consultant - Chemical Separation Techniques Environmental Samples [USA A 1432 / Y. Kuno]	s for		
		Clemson	\$298,000.00	\$112,747.00 The SSTS approved funding at its December 2, 2004, meeting for Clemson to complete the development of chemical separations techniques requested by the IAEA.
		IAEA	\$35,000.00	\$34,008.00 Travel funds were provided for Dr. James Navratil (Clemson University) and Amanda Padgett (Clemson University graduate student) to visit the IAEA during their effort on this task in 2004. This activity is complete.

Monday, February 07, 2005 ⁴Q Page 10 of 44

TaskID A.258	Subtas	Title [Agency# / Task Officer] Detection System for In Situ Measurements of Signatures from Spent Fuel Storage Contained		Total Budget	Total Spen	at Comments
4.050		[USA A 1434 / Y. Lee]	LANL	\$180,000.00	\$55,900.	David Beddingfield (LANL) is preparing a concept design report for IAEA review and approval to be issued in early 2005.
A.259		Expert - Development of New Seals [USA E 1452 /]				
		[CFE	\$320,900.00	\$145,528.	00
						The expert Hal Undem implemented a two-part strategy for the design of the new IAEA adhesive seal, called the VOID-3 seal. Negotiations between the IAEA and a seals design contractor are in progress, with a January 2005 contract award anticipated. Mr. Undem is involved in defining multiple strategies for improving the metal seal. An SP-1 was approved for the purpose of beginning work on the Ultrasonically Interrogated Metal Seal (UIMS) System. Mr. Undem participated in implementing five technologies, including the Bar Code Label System which will be used for inventorying high value items in the field. He mentored an intern in the standardization of the seals laboratory Operations Research Report. Mr. Undem supported the seals laboratory in the rebuilding of the metal seals opening machine, and in general laboratory remodeling and expansion. He reconciled documents for more than 1400 seals. Mr. Undem tested alternative temperature sensors for special applications under laboratory conditions and found them to be acceptable. The first units back from the field show good characteristics. The user manual is being revised to incorporate use of the new sensors. Mr. Undem monitored the procurement of an X-ray fluorescence analyzing device.
A.260		Evaluation of Equipment Needs for Future Ana Services of Safeguards Analytical Laboratory	alytical			
		[USA F 1454 /]	KDD	ФСZ 000 00	# 00 F 00	20
			KBR	\$67,000.00	\$66,530.	This task was reported closed last quarter, but the contract with KBR was extended in case the IAEA may want to address additional SAL evaluation issues.
			NBL	\$33,000.00	\$32,481.	00

Monday, February 07, 2005 ^{4Q} Page 11 of 44

	Title				
TaskID A.261	Subtas [Agency# / Task Officer] Antineutrino Meeting [USA JNT A 1465 / G. Bosler]	Organizatio	Total Budget	Total Spent	Comments
	•	ISPO	\$0.00	\$0.00	
				This task	k is on stand by.
		LANL	\$14,300.00	\$14,300.00	
				This task	k is on stand by.
		LLNL	\$13,000.00	\$1,923.73	
				This task	k is on stand by.
A.262	Coordinated Experts' Meeting on Noble Monitoring and Sampling [/]	Gas			
	171	PNNL	\$5,000.00	\$4,194.00	
			φο,σσσ.σσ		k is on stand by.
A.263	Traceability of DA Measurements - Prov Certified Reference Materials [/]	rision of NBL			
	[/]	NBL	\$103,000.00	\$0.00	
		NDL	ψ100,000.00	*	rked on the project plan for this task.
A.264	Analytic Quality Control - Participation SME Programme	of SAL in NBL			
	[/]	NDI	ФОБ 000 00	# 0.00	
		NBL	\$25,000.00	\$0.00 NBL rece the proje	eived the work authorization for this task and began working on ect plan.
A.265	Environmental Sampling Evaluation Su [USA A 1498 /]	pport			
		ORNL	\$107,000.00	\$69,149.00	
				sampling February sampling chapters	scher completed two trips to Vienna to provide environmental g evaluation support to the IAEA. A third trip is planned for y 2005. The review and modification of the environmental g Safeguards Technical Report is underway. The first four swere delivered to the IAEA for review and comments. The g two chapters will be completed at the end of January 2005.

Monday, February 07, 2005 ^{4Q} Page 12 of 44

TaskID B.080	Title Subtas [Agency# / Task Officer] Training Workshop in Desig the Entire Life Cycle of Rese [USA B 984 / P. Rodriguez]	n Information Review for	Total Budget	Total Spent Comments
		BNL/SAC	\$305,000.00	\$244,681.00 This task is on stand by.
		ORNL	\$0.00	\$0.00
	B.080.01	ISPO	\$76,062.00	\$90,200.00 This task is on stand by.
B.082	Safeguards Training Course	e: Enrichment Technology		·
	[USA B 1001 / D. Liles]	ORNL	\$344,332.00	\$247,332.00 The SSTS approved funding at its October 2, 2004, meeting for ORNL to update the training materials for the Enrichment Technology course. The next session of the training course is scheduled tentatively for June
				2005. A request for funding for course delivery will be addressed at the February SSTS meeting.
B.084	Revision of Introductory Co	urse on Agency SG (ICAS)		
	[USA B 1106 / J. Vidaurre-He	· -	Φ45.444.00	MAT 444 00
		BNL/ENT	\$15,144.00	\$15,144.00
		Sonalysts	\$471,000.00	Michael Stein (Sonalysts) worked for one week at the IAEA with representatives of the Section for Safeguards Training (TTR) to upgrade the ICAS. Mr. Stein consulted with the TTR Section Head and the ICAS Training Officer to understand their views of the modernizations and improvements needed to upgrade the current version of the course. Mr. Stein interviewed Operations Division Section Heads, Unit Heads, and graduates of ICAS 50, to obtain input on the job performance of ICAS graduates. He reviewed the curricula and selected training materials for the 50 and 52 ICAS. Mr. Stein submitted a report with recommendations for upgrading the ICAS.
B.089	Safeguards Equipment Tech	nnician Training Specialist		
	[USA B 1255 / J. Barroso] B.089.05	Sonalysts	\$7,044.00	\$7,044.00
	B.089.06	Sonalysts	\$26,937.00	This task is on stand by. \$0.00 This task is on stand by.

TaskID B.090	Subtas	Title [Agency# / Task Officer] Workshop on Quality Assurance Techniques [JNT B 1277 / D. Neal]	Organizatio	Total Budget	Total Spent	t Comments
			SAM	\$412,000.00	\$344,668.0	STAT-A-MATRIX conducted the final Workshop on Quality Management Systems during the week of November 1, 2004, in Vienna. This subtask is complete.
	B.090.01		SAM	\$84,000.00	\$56,313.0	The three day Quality Management Workshop for Managers scheduled for the last week of October 2004 has been postponed to the week of March 7, 2005. This workshop will be held in Vienna at a site to be determined. It is the final workshop to be delivered under this subtask.
B.091		Training on Remote Monitoring and Unattender Monitoring [USA B 1337 / V. Ryjikov]	ed			
		. ,, .	ISPO	\$58,293.00	\$58,293.0	00
	B.091.03		LANL	\$92,500.00	\$17,800.0	Radiation Review Software Training - LANL met with Colin Carroll (Sonalysts) during the first week of November to begin planning the course curriculum, content, training approach, and schedule. A course schedule and design document were drafted. The draft course design document specifies the intended audience for the course, course prerequisites, and a list of tasks that the course participants would be expected to be able to perform upon completion of the course. The draft document was discussed by the IAEA, LANL, and Sonalysts, via a telephone conference held on November 24. The IAEA was satisfied with the proposed course content. The IAEA prefers to delay the class until May 16 to 18, allowing Sonalysts time to produce thorough course materials. The IAEA suggested that the trip to Vienna to present the class be lengthened to seven working days to allow more time for preparation and course feedback. These schedule issues involve changes to the statement of work and are being discussed with the project sponsors.
	B.091.03		Sonalysts	\$28,500.00	\$0.0	Radiation Review Software Training - Please see Task B.091.03, Contractor: LANL.

Monday, February 07, 2005 ^{4Q} Page 14 of 44

TaskID B.093	Subtas	Title [Agency# / Task Officer] IAEA Participation in U.S. Sponsored Training Courses	Organizatio	Total Budget	Total Spent	Comments
	B.093.05	[USA B 0086 / J. Vidaurre-Henry]	LANL	\$217,286.00	\$275,800.00	Advanced Plutonium Verification Techniques - The next course is
	B.093.06	-	LANL	\$505,748.00	\$278,800.00 N	NDA Course for New IAEA Inspectors - LANL supported the ISPO NDA course relocation effort. The next NDA course is scheduled for February 22 to March 4, 2005.
	B.093.07		LANL	\$74,000.00	\$59,600.00 S	Support to ICAS - Philip Hypes (LANL) assisted with the NDA instruction in ICAS in November.
	B.093.07		SRNL	\$47,000.00	\$45,065.00 T	his task is on stand by.
B.094		Neutron Pulse Simulator for Training and Test [USA B 1401 / V. Ryjikov]	ing			
B 095		Feacibility Study on Inspector Cartification	LANL	\$430,300.00	u F / n N P N F h a c tt	The Neutron Pulse Simulator (NPS) project is nearing completion. Five units have been assembled and tested. The sixth unit is in progress. Final testing on these units will include environmental chamber testing. A bug was found in the firmware that caused a bias in the output when unning a periodic function. This bug existed in the original ISA-based NPS hardware. New firmware has been developed to solve this problem. Preliminary testing with the new firmware was successful. New EPROMs will be installed in all units and tests performed again. Physicists have reviewed the user interface software, and comments have been incorporated into the interface. A new feature has been added to the software, which allows the hardware to store the pulser's configuration when power is removed. This allows the user to program the NPS in the lab and then move the unit to the field for testing. The NPS will start producing the pulses that were programmed into it prior to removing power, when it is reenergized.
B.095		Feasibility Study on Inspector Certification [USA B 1407 / S. Bobadila Mucino]	Sonalysts	\$67,000.00	\$76,523.00	
					Т	his task is on stand by.

Monday, February 07, 2005 ^{4Q} Page 15 of 44

	Title				
TaskID B.096	Subtas [Agency# / Task Officer] Workshop on Additional Protocol Activities [USA B 1415 / A. Osipov]	Organizatio	Total Budget	Total Spen	t Comments
		BNL/NCT	\$45,000.00	\$44,169.0	00
					Brian Boyer traveled to Helsinki, Finland, to meet with STUK (Radiation and Nuclear Safety Authority of Finland) to discuss their version of the Additional Protocol Training Workshop. Their approaches were appropriate. Help and support will be reciprocal.
B.098	Enhanced Observational Skills				
	[USA B 1446 / D. Liles]				
		Sonalysts	\$230,000.00	\$163,972.0	00
					Digital files of the Enhanced Observational Skills course materials for the ICAS version of the course were delivered to Dawn Liles (TTR) in October to support the Agency during ICAS 52. The initial training course on Enhanced Observational Skills is scheduled for the week of February 14, 2005. Two refresher training sessions are not yet scheduled, but are expected to be completed in CY 2005. The contract has been extended to March 31, 2005, to accommodate the Agency's scheduling needs.
B.099	Physical Inventory Taking Computer Based T [USA B 1464 / D. Liles]	Fraining			
		IAEA	\$175,000.00	\$31,389.0	00
					Brian Smith (PNNL) observed the IAEA training course practical session on physical inventory verification at the Westinghouse plant in Vasteras, Sweden. PNNL drafted the content for the computer based training. Legal issues with the subcontract have not been resolved.
B.100	Expert - Support for State Systems of Accou and Control of Nuclear Materials (SSACs) [USA B 1469 /]	nting for			
		CFE	\$160,200.00	\$68,933.0	00
					The expert Dawn Liles developed a course on Technical Writing Skills and delivered it to Agency staff from February 7 to 11, 2005. Ms. Liles revised the course on Observational Skills and presented it as a pilot for

The expert Dawn Liles developed a course on Technical Writing Skills and delivered it to Agency staff from February 7 to 11, 2005. Ms. Liles revised the course on Observational Skills and presented it as a pilot for ICAS 52. She revised the course on Communication Skills and conducted it from January 10 to 14, 2005. Ms. Liles prepared a proposal to conduct a combined one-week session during ICAS 53 which will include: Character Building and Team Building Skills, Observational Skills, Communication Skills, Technical Writing, and Presentation Skills. Team building and character building focus on the participants' development of their levels of confidence. An important aspect of this training is the understanding of cultural diversity and individualism. The audience for ICAS 53 will include new IAEA inspectors. These courses are relevant to support staff, member state representatives, and Euratom inspectors.

	Title				
TaskID B.101	Subtas [Agency# / Task Officer] Expert - Senior Instrumentation Speciali NDA Equipment and Procedures	Organizatio st - Training in	Total Budget	Total Spent	Comments
	[/]				
		IAEA	\$50,000.00	\$0.00	
					e SSTS approved by phone poll the nomination of Philip Hypes for escapior Instrumentation Specialist position.
C.102	Development of Safeguards for Final Dis Spent Fuel in Geological Repositories - II				
	[JNT C 1204 / A. Diaz-Mosquera]				
		ISPO	\$5,389.00	\$5,389.00	
				The	ere has been no activity reported for this quarter.
		LANL	\$58,600.00	\$58,600.00	
				The	ere has been no activity reported for this quarter.
		SNL	\$17,947.32	\$17,947.32	
				The	ere has been no activity reported for this quarter.
C.105	Expert - Development of the Safeguards Rokkasho Reprocessing Plant (Ehinger) [USA C 1257 / S. Johnson]	-			
		CFE	\$774,500.00	\$646,129.00	
				The	e expert Mike Ehinger continued to support the IAEA's JNFL project.

The expert Mike Ehinger continued to support the IAEA's JNFL project. The JNFL facility started uranium commissioning activities at the end of December 2004. The IAEA will begin using the solution monitoring equipment and software in inspections. Mr. Ehinger participated as an instructor in a training program at the facility for inspectors selected for RRP. He attended working group meetings held in Japan. Mr. Ehinger conducted maintenance and upgrade activities for the installed solution monitoring measurement system (SMMS) equipment at RRP. He is conducting integration and acceptance tests in Vienna on the calculation and evaluation software, which will use data collected from the solution monitoring equipment.

Monday, February 07, 2005 Page 17 of 44

	Title				
TaskID	Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
C.106	Expansion of the Physical Model				
	[USA C 1279 / Z. Liu]				
		BNLCONTR	\$28,000.00	\$15,706.00	
				Т	here has been no activity reported for this quarter.
		INEEL	\$11,900.00	\$11,379.00	
				Т	here has been no activity reported for this quarter.
		ISPO	\$11,000.00	\$13,423.00	
				Т	here has been no activity reported for this quarter.
		LLNL	\$12,000.00	\$10,930.32	
				Т	here has been no activity reported for this quarter.
		ORNL	\$140,745.00	\$140,745.00	
				Т	here has been no activity reported for this quarter.
C.108	Expert - SG Research Analyst and Doc	umentation			
	Specialist (J. Anderer)				
	[USA C 1303 / D. Neal]				
		CFE	\$421,100.00	\$405,041.00	
					The expert Jeanne Anderer completed her assignment on October 31, 2004.
C.110	Development and Test of an Integrated Scheme for Transfers to Dry Storage at				
	Reactors				
	[JNT C 1388 / J. Doo]				
	- -	LANL	\$9,300.00	\$9,300.00	
					on Sanborn (State Department) will participate in field trials at the Volsung Nuclear Power Plant in South Korea, from March 7 to 11, 2005.

Monday, February 07, 2005 ⁴Q Page 18 of 44

TaskID C.111	Title Subtas [Agency# / Task Officer] Safeguards System for Chernobyl Unit 4 [JNT E 1445 / O. Zatsepin]	Organizatio	Total Budget	Total Spent Comments
	[evil 2 villey of 2mospin]	BNL/NCT	\$219,000.00	\$168,512.00
				Brian Boyer (BNL) and Colin Carroll (Sonalysts) attended a meeting with the IAEA and Chernobyl NPP in Vienna during the week of November 15 to 19, 2004, to refine plans for upgrading safeguards at the Chernobyl Unit 4 Shelter. Chernobyl reported on the status of contracts for stabilizing the Shelter and preparing a conceptual design for a new safe confinement. The IAEA reported on plans to monitor access points to the Shelter and the Unit 4 Reactor Hall. The IAEA plans to install the radiation monitors and cameras in the first quarter of 2005. Chernobyl and the IAEA conducted tests to measure radiation levels. They studied the feasibility of using surveillance cameras and radiation monitoring equipment in the proposed areas in the fall of 2004. The tests were inconclusive. Additional tests are required to complete the monitoring design. The meeting participants composed, and agreed to, a schedule for completing the installation of IAEA equipment for the selected monitoring points at the Shelter and Unit 4 Reactor Hall.
		Sonalysts	\$198,000.00	\$87,296.00
				Please see Task C.111, Contractor: BNL/NCT.
C.112	Consultant - Development Support for Integ Safeguards [USA C 1451 / R. Hurt]	grated		
		IAEA	\$60,000.00	\$46,937.00
	C.112.01	ISPO	\$57,000.00	\$0.00
				The SSTS approved funding in October for the continuation of James Larrimore's consulting arrangement with the IAEA. The consultant will commence work under a new contractual arrangement with BNL in January 2005.
C.113	Development of Techniques to Estimate the Separative Capacity of R&D Isotopes [/]	e		
		BNL/NCT	\$25,000.00	\$0.00
		LANL	\$40,000.00	There has been no activity reported for this quarter. \$2,100.00
				There was no activity scheduled for this quarter.
		LLNL	\$55,000.00	\$0.00 There was no activity scheduled for this quarter.
		ORNL	\$40,000.00	\$0.00
				There was no activity scheduled for this quarter.

Monday, February 07, 2005 4Q

TaskID	Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
D.122	Systems Engineering Process for SGIT	_		_	
	[USA D 1158 / G. Cherif]				
	D.122.01	CGE&Y	\$251,000.00	\$89,522.00	
				2.2 and include t Support.	delivered the draft Safeguards Software Engineering Process it is being revised. SSEP 2.2 extends the quality program to the Sections for Information Support Services and Infrastructure. CGE&Y will begin work on SSEP 3.0 in early 2005. SSEP 3.0 the quality documents to move the program forward to CMMI
	D.122.02	BIT	\$70,000.00	\$26,311.00	
				There ha	as been no activity reported for this quarter.
D.136	Expert - Open Source Information Collecti Terrence Dunn [USA D 1335 / M. Nicholas]	ion -			
		CFE	\$614,200.00	\$465,208.00	
				The exp	ert Terrence Dunn (Divisional Information Security Policy

Officer) advised the Safeguards Department Information Security Officer on the continuing development and implementation of improved information security policies and procedures. Mr. Dunn examined several reported problems and deficiencies related to information and physical security and he proposed or implemented solutions. He served as Department representative to the Agency-wide Information Security Policy Steering Group (ISPSG). Mr. Dunn assisted in the design of a bid request and bid evaluations for a security regime for a Safeguards Regional Office. He completed the revision of the Safeguards online computer security awareness module, provided policy guidance for information technology (IT) security systems and practices, and provided management input for an IT security architecture project for the Department. Mr. Dunn revised the Safeguards Manual section SMM 3.4 - Security of Safeguards Information. He provided an introductory briefing on information security to new inspectors in the Introductory Course on Agency Safeguards. Mr. Dunn participated in the Department's planning for business continuity and disaster recovery. He proposed several security enhancements for the Agency on classified document controls.

Monday, February 07, 2005 Page 20 of 44

Title

		Title				
TaskID	Subtas	[Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
D.137		Consultants - Assistance on Information Co and Information Systems [USA D 1126 / M. Nicholas]	llection			
	D.137.01		ISPO	\$73,840.00	\$48,023.00	
					-	Allen Locke - Mr. Locke attended the workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. Mr. Locke spoke on information analysis at the workshop.
	D.137.02	!	LLNL	\$50,653.00	\$50,653.00	
					1	Mary Beth Ward - There has been no activity reported for this quarter.
	D.137.03		LANL	\$123,000.00	\$76,499.65	
					1	Jeff Bedell - Dr. Bedell worked with the IAEA/SGIT in Vienna from November 29 to December 7, 2004, to analyze open source scientific and commercial trade literature. Dr. Bedell is considering two, two-week consulting visits in calendar year 2005, as requested by Victor Braguine (!AEA).
	D.137.04	ļ	LANL	\$213,000.00	\$125,008.00	
					 	Arvid Lundy - Dr. Lundy completed a two-week consulting visit with the AEA/SGIT on December 3, 2004. He addressed the methodology and use of scientific literature, as part of the IAEA's open-source collection and country evaluations. Dr. Lundy worked with SGIT and SGOB. He made plans for the next two-week visit from March 14 to 25, 2005, and another tentatively from June 13 to 24, 2005.
	D.137.06	•	PNNL	\$133,767.00	\$98,710.00	
						Ned Wogman - There has been no activity reported for this quarter. Dr. Wogman is planning a trip to the IAEA during the first quarter of 2005.
	D.137.07	,	SNL	\$99,756.90	\$96,684.82	
						Joyce van Berkel - There has been no activity reported for this quarter. A proposal for continued support in 2005 is being prepared.
	D.137.08	l e e e e e e e e e e e e e e e e e e e	LLNL	\$101,000.00	\$71,061.50	
					l t	George Anzelon - Dr. Anzelon completed a two-week consulting visit to AEA Headquarters during December 2004. He assisted the IAEA with the preparation of reports. Dr. Anzelon contributed to analysis of technical infrastructure.
	D.137.09	r	LLNL	\$48,515.00	\$35,720.87	
				•		Bill Domke - Dr. Domke is planning a two-week consulting visit with the AEA/SGIT in January 2005.
	D.137.10	1	LANL	\$2,000.00	\$2,000.00	
					I	Don Sandstrom - There has been no activity reported for this quarter.
	D.137.11		LLNL	\$42,982.27	\$42,715.93	
					F	Roger Miller - There has been no activity reported for this quarter.

Monday, February 07, 2005 4Q

TaskID D.138	Subtas	Title [Agency# / Task Officer] Or Open Source Information Collection [USA D 1381 / T. Dunn]	ganizatio	Total Budget	Total Spent	Comments
	D.138.02	2	LLNL	\$53,017.73	\$53,017.7	3
						The IAEA, ISPO, and LLNL have agreed to close this subtask.
	D.138.03	3	IAEA	\$39,000.00	\$25,479.0	0
						K2 Enterprise System - There has been no activity reported for this quarter. Eduardo Fujii worked with the IAEA in the third quarter of 2004. The IAEA plans to have him make the final K2 interface adjustments in early 2005, which will complete his contract. The IAEA purchased two new servers to support this new system.
D.139		Development of Relational Database Management System for Protocol Information [USA D 1336 / G. Chtcherbinin]				
			PNNL	\$357,000.00	\$357,000.0	0
						This task is on stand by.
D.140		Training Course on Analytical Skills Development [USA B 1392 / D. Liles]				
			ISPO	\$0.00	\$0.0	0
						This task is on stand by.

Monday, February 07, 2005 ⁴Q Page 22 of 44

	•	Title			
TaskID D.141	I	[Agency# / Task Officer] Internship Program [USA D 1396 / R. Gaetano]	Organizatio	Total Budget	Total Spent Comments
	D.141.04	•	BNL	\$803,634.00	\$407,949.00
					All thirteen USSP interns are installed in their positions at the IAEA. They are Indhira Ramirez (Safeguards Programme and Resources), Kathleen Donoghue (Software and Hardware Services - ISH), Andrew Janowczyk (ISH), Cherie Knickerbocker (JNFL Project), Christopher Duncan (Information Support Services - ISS), Sinkyung Kim (ISS), Jessica Satterfield (ISS), Maryam Tatavosian (ISS), Jonathan Essner (ISS), Kendra Klump (NDA and Seals - TNS), Francesco Queirolo (TNS), Kimberly van Dyke (Installed Systems - TIE), and Jennifer Olszewski (TIE). The SSTS approved an extension to Kimberly van Dyke's assignment through June 2005 and to Jonathan Essner's assignment through August 2005. The 2005 USSP Intern Symposium is scheduled for February 8 in Vienna.
	D.141.04		BNL/OEP	\$68,000.00	\$0.00
	D.141.05		IAEA	\$52,000.00	\$8,247.00
					The consultant Christopher Dalton began his assignment in SGIT Section for Software and Hardware Services on October 4, 2004. He is working on CIOSP (Common Inspection Onsite Software Package), a software program that allows inspectors to review various details about nuclear facilities. CIOSP is being reengineered to take advantage of technology advances, to make the software more efficient by designing it to upload only the facility information that is required, and to convert the software to the .Net environment to allow easier movement between facility files. Mr. Dalton restructured the Inventory Verification section of the application since October 1. All the data in the Inventory Verification section is available on an "as needed" basis.
	D.141.06		IAEA	\$107,000.00	\$52,700.00
					The expert Gregory Gerrein is the Test Manager for I3S System. This involves the review of test concepts for each of the currently delivered eight subsystems, the scheduling of time and resources for test implementations, the performance of the tests, and the review of the results of tests performed. Mr. Gerrein serves as the interface between the in-house QA group and the third-party software developers who delivered the software and the test concepts. He is responsible for accumulating, manufacturing, and organizing test data for the I3S system. Mr. Gerrein maintains changes in the External Interface Control Document to the I3S system. He performed software design review for subsystems being delivered. Mr. Gerrein traveled to the Rokkasho Reprocessing Plant in Japan for hardware and software installation from November 8 to November 26, 2004.

Monday, February 07, 2005
Page 23 of 44

TaskID D.142	Title Subtas [Agency# / Task Officer] Expert - Senior Safeguards Information [USA D 1403 / J. Leppingwell]	Organizatio Analyst	Total Budget	Total Spent	Comments
		IAEA	\$443,500.00		The expert Richard Wallace conducted searches and reviewed open source technical literature for several countries, contributed analysis of their nuclear capabilities to the state evaluation process, and assisted in the preparation of State Evaluation Reports. Dr. Wallace participated in meetings with the State Evaluation Reports. Dr. Wallace participated in meetings with the State Evaluation teams to provide advice on search and analysis strategies. Ad-hoc questions from Operations and the DDG required open-source research, result evaluation, and rapid generation of special summary reports. Dr. Wallace evaluated technical information and its consistency with open source information for Additional Protocol declarations. He collected and evaluated open source background material to guide inspectors on short-notice complementary access inspections in several different countries. Dr. Wallace attended the workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. He evaluated and provided recommendations on several software packages. Dr. Wallace is participating on the IIS team to help determine IIS requirements for data collection and analysis tools. He provided technical information to assist the staff that is compiling data for the illicit trafficking database. Dr. Wallace provided information on industrial uses for, and properties of, different isotopes. He attended a two-day training session on Open Source Information Collection, provided by the Swedish support program.
D.146	Quality Control Verification Software fo States Nuclear Material Accounting Rep Agency [USA D 1429 / I. Vlad]				

\$135.000.00

\$122,268,78

SAIC

The IAEA completed the User Acceptance Test with internal users and presented a list of change requests for the Quality Control Verification Software (QCVS) in September. AWST addressed the thirty-four listed change requests and delivered the final QCVS release 4 to conclude phase 5 on November 19, 2004. QCVS release 4 was tested and received positively by IAEA users. The IAEA provided a list of ten "cosmetic" issues on December 7, 2004, and requested AWST to address these before the User Acceptance Letter will be signed, which must happen before the Maintenance Phase can start.

In the next quarter, AWST will address the final "cosmetic" issues, and the IAEA will sign the User Acceptance Letter. The IAEA plans to conduct an external User Acceptance Test with selected Member States after the Acceptance Letter has been signed. The Maintenance Phase is planned in parallel to this external User Acceptance Test. AWST plans to discuss with the IAEA improved risk mitigation strategies to be used in possible future projects, e.g. in a project to develop a nuclear material accountancy data entry tool that would add desired functionality to QCVS.

TaskID D.148	Subtas	Title [Agency# / Task Officer] Expert - Special Technology Coordinator [USA D 1443 /]	Organizatio	Total Budget	Total Spent	Comments
			CFE	\$293,200.00		The expert John Hilliard attended the workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. The workshop identified new analysis tools for the IAEA. IAEA teams will be assigned to investigate the feasibility of these tools. Mr. Hilliard visited JRC/Ispra to explore their research related to a number of open source areas such as multilingual information extraction, cross-lingual navigation and classification, breaking news detection and visualization, visualization of textual contents, and import/export product recognition from open sources. He continued work as project leader to create a new user interface or open source portal for the Department of Safeguards. Mr. Hilliard contracted, and worked closely, with Verity consultants in the migration from Search 97 to the K2 Enterprise system. He assisted the Section Head in the development of a new "Information Analysis Architecture," which will encompass the creation of an external expert group for all aspects of information analysis. Mr. Hilliard continued to work with INVO on the identification of data mining tools for the purpose of link analysis and data visualization. He collaborated with Canadian
						Support Program officials on GIS open source products and the extraction of open source items into a structured database.
D.149		Specialist Training for IAEA's Imagery Analy [USA B 1442 / F. Claude]	ysts			
	D.149.01		IAEA	\$13,000.00	\$8,501.00	0
						The IAEA is awaiting information on the final design of the Satellite Imagery Analysis Unit (SIAU) upgrade, before obtaining training for staff members.
D.150		Expert - Systems Analyst [USA D 1460 /]				
			CFE	\$295,100.00	\$147,648.00	
						The expert Scott Miller worked with DataPhone to integrate the bar-code scanning device into the server components by using web services technology. A complete round of functional testing was completed successfully. The CATS system will use the bar-code label printers and scanners currently being used by the Inspector Document Package

Monday, February 07, 2005
Page 25 of 44

system. Mr. Miller is testing CATS with the IDP system and working with DataPhone to resolve outstanding issues. Integration testing will be completed by the end of December. CATS implementation in Operations C will begin in the middle of January. Mr. Miller worked on three other projects in various capacities: the Additional Protocol/Complimentary Access System, SAGSI web portal, and the Design Information Management System.

	Title				
TaskID D.151	Subtas [Agency# / Task Officer] IAEA Safeguards Information System Project	Organizatio Re-engineering	Total Budget	Total Spent	Comments
	[USA D 1461 / L. Costantini]				
		TBD	\$0.00	ISI	s task will provide a mechanism for POTAS-funded support to the S Re-engineering Project. Non-POTAS support is tracked under sk SP.62. There are no activities funded under this task at present.
D.152	Software, Hardware and Database Pro Satellite Imagery Analysis Support [/]	vision for			
		IAEA	\$100,000.00		e IAEA received, and is evaluating, a proposal from Space Imaging upgrading the IAEA's satellite imagery analysis laboratory.
D.153	Junior Professional Officer for the JN [/]	FL Project			
		IAEA	\$50,000.00	Pro in ti (Ta for sof be	e SSTS approved at its meeting on December 2, 2004, a Junior offessional Officer (JPO) position, which is the first US JPO position he Department of Safeguards. The IAEA selected former internals by D.141.02) and current consultant (Task D.141.06) Gregory Gerrein this position. Mr. Gerrein will continue to support and manage tware development projects for the JNFL Project. Mr. Gerrein plans to gin this assignment in July 2005, after the completion of his neulting assignment.
E.114	IAEA Evaluation of Sandia Two-Way F Seals for Inspection Use [USA E 1205 / M. Goldfarb]	Radio Frequency			
		ISPO	\$0.00	\$0.00	
		SRNL	\$12,617.00	\$1,000.00 Thi	s task is on stand by.
	E.114.03	SNL	\$144,027.26	\$144,027.26 The	ere has been no activity reported for this quarter.
E.116	SVSC Trial Production [USA E 1235 / M. Goldfarb]				
		Aquila	\$76,000.00	\$77,918.00	
		BNLCONTR	\$103,000.00	\$102,959.00 Thi	s task is on stand by.
		SNL	\$4,188.55	\$4,188.55	

Monday, February 07, 2005 4Q Page 26 of 44

TaskID E.119	Title Subtas [Agency# / Task Officer] Upgrading of GARS Review S Factory Support [USA E 1249 / J. Whichello]	Organizatio Software and Software	Total Budget	Total Spent	Comments
	E.119.01	Aquila	\$110,000.00	- The SS contract the Gene	ervices Contract for General Advanced Review Software (GARS) STS approved funding for the IAEA to renew its direct services with Aquila to provide rapid response for software upgrades to eral Advanced Review Software (GARS) and other related s. A follow-on contract has not been received.
E.121	Development of Authentication DUPIC Facility [USA E 1267 / K. Czock]	on Measures for DSNC at	\$162,000.00	\$146,900.00 There ha	as been no activity reported for this quarter.

Monday, February 07, 2005 ^{4Q} Page 27 of 44

TaskID E.122	Title Subtas [Agency# / Task Officer] URM Systems Standardization and Support [USA E 1274 / K. Ferstl]	Organizatio	Total Budget	Total Spent Comments
		LANL	\$180,000.00	\$150,000.00 The approved scope of work for this task has been completed. The IAEA agreed that this task can be closed.
	E.122.02	LANL	\$70,000.00	\$55,539.00 Radiation Review for VIFM - The proposed interface definition for Analysis Component Object Modules (COMs) was delivered to the IAEA in October 2004, as part of the IRS Manager and Generic Component Interface Specification. Radiation Review Version 3.1.0.1 was delivered to the IAEA on December 1, 2004, as part of Baseline 1. Radiation Review 3.1.0.1 supports fully imported data from VIFM files (including those with long filenames). The software was tested before delivery. All documentation (User Manual, Release Notes, Test Plan, and Test Results) was updated. LANL continues to discuss the development of the Analysis COM interface with the IAEA.
	E.122.03	LANL	\$140,000.00	\$17,578.00 Performance Review Software - The format and purpose of the various files containing potential performance monitoring information was discussed with the IAEA. Requirements for what this task could produce and the task scope are still being discussed with the IAEA. LANL delivered the requirements document at the end of March.
	E.122.04	LANL	\$314,000.00	\$211,082.00 MIC Generic Module (GM) - LANL prepared a document describing the work required to complete MIC GM and its testing in anticipation of Baseline 2. The final MIC GM will be renamed MIC 2.0 and is planned for release with LANL's UNARM Baseline 2 in June 2005. The SSTS approved funding at its December 2004 meeting for LANL to complete the MIC GM.
	E.122.06	LANL	\$489,000.00	\$486,300.00 Auxiliary Communications Device (ACD) - Aquila Technologies produced a circuit board and parts kit under its contract with LANL. LANL populated the board and discovered some modifications which are required. They will be incorporated in a version that will go to Aquila in December 2004. Keith Tolk (IAEA) visited in early November. LANL set up a mockup of the system to be used in Rokkasho, so Mr. Tolk could see it in operation. LANL discussed authentication issues with Mr. Tolk. The firmware is nearly complete. The ACD has been operational for some test situations.

Monday, February 07, 2005 ^{4Q} Page 28 of 44

	Title				
TaskID	Subtas [Agency# / Task Officer] E.122.08	Organizatio LANL	Total Budget \$157,000.00	Fotal Spent \$35,500.00	Comments
				UMS So 2004, an issues in documer finalized issues in ICfg, and update th	ftware Modifications - Baseline 1 was delivered on December 1, id contained several software components which addressed this task. They were analyzed, implemented, tested, and need. An installation CD for these software components was and delivered as part of Baseline 1. Work remains to resolve other software components, including the MiniGRAND, ILON, d Iterm, which will be implemented in Baseline 2. LANL will the specification showing the resolution of software component ddressed for Baseline 1 at the end of January 2005.
	E.122.09	LANL	\$77,700.00	\$0.00	
				phone po installation for Radia will inclu	ion and Delivery of Baseline 1 - The SSTS approved funding by oll in November for LANL to complete the Baseline 1 general on media and implementation of flexible installation capability ation Review, Digital Video Review, and Position Review. This de demonstration, training, and familiarization of these at the IAEA.
	E.122.10	LANL	\$100,000.00	\$0.00	
				funding b	Convert INCC and ISO to COM Objects - The SSTS approved by phone poll in November for LANL to identify a method to the INCC and ISO analysis software to COM objects.
	E.122.11	LANL	\$159,077.00	\$0.00	
				SSTS ap facility a work und universa was red (URM) S	Software Components for Chernobyl Conditioning Facility - The opposed funding for LANL to complete software for the spent fuel at Chernobyl. The software development (originally scoped for der POTAS Subtask E.130.01) was viewed by the IAEA to have I applicability with other IAEA monitoring systems. Therefore, it lassified under this task for Unattended Remote Monitoring systems Standardization and Support. The software will also ome of the Baseline 1 and Baseline 2 requirements.
	E.122.12	LANL	\$203,000.00	\$0.00	
				Decemb modules and anal	osition of Analysis Modules - The SSTS approved funding at its per 2, 2004, meeting for LANL to decompose all analysis in the Radiation Review software to COM objects. Data import lysis codes for the Radiation Review software will be rewritten, the software can interface with data and software supplied by welopers.
	E.122.13	LANL	\$156,000.00	\$0.00	
				SSTS ap establish software	Board and Baseline Release Management and Support - The oproved funding at its December 2, 2004, meeting for LANL to a control board to coordinate software development and product compatibility, to ensure a successful delivery of the 2 products planned for June 2005.

Monday, February 07, 2005 ⁴Q Page 29 of 44

TaskID E.125	Subtas	[Agency# / Task Officer] Remote Monitoring and Unattended Digital Surveillance Systems [USA E 1330 / M. Aparo]	Organizatio	Total Budget	Total Spent	Comments
	E.125.02		IAEA	\$153,574.00	\$153,574.00	
	E.125.12		IAEA	\$121,000.00		ANL tested the GemView software upgrade and accepted the program as submitted. Aquila released the software formally in December 2004.
	E.125.13		LANL	\$58,000.00	[r s t	Optional Imaging Sensor Development Support - The 2.0 mega pixel Digital Dome camera is functional and taking pictures. The IAEA has equested that the remaining effort for this task be spent on completing software for viewing immersive images, while tying the application into the UNARM Integrated Review Software system communication protocol. The project has been delayed temporarily and interrupted by higher priority issues and tasks, as specified by the IAEA.
E.126		Expert - Safeguards Equipment Systems Info Security (Tolk) [USA E 1339 / M. Aparo]	rmation			
			CFE	\$599,700.00	\$451,034.00	The expert Keith Tolk continued drafting policies for equipment security

The expert Keith Tolk continued drafting policies for equipment security, automated operator's declarations, and equipment sealing, which should be ready for review and approval before the end of 2004. Mr. Tolk traveled to the USA to meet with the developers of the Advanced Communication Device (ACD) to resolve issues associated with the new equipment and to witness operational tests. He traveled to the Rokkasho Reprocessing Plant (RRP) in Japan to attend the Working Group meetings. Mr. Tolk participated in the inspection of security related hardware in the spent fuel pond area and computer firewall configuration and installation. He resolved issues associated with the authentication of the Inspectorates' Jug Passage Detectors, designed a secure wall penetration for cables coming from the vitrification cell, and investigated other security related issues. Mr. Tolk continued public key infrastructure development and implementation, including development of the "mailbox" system to be deployed in Canada and elsewhere, and the sign and forward system. He provided assistance to SGTS-TNS on security-related issues associated with laptop computers used in the field as equipment controllers. Mr. Tolk designed sealing hardware for existing shipping containers.

Monday, February 07, 2005 Page 30 of 44

Title

TaskID	Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent				
E.127	•	expert - Remote Monitored Surveillance Systems Development and Implementation Coordination Regula)						
	[USA E 1350 / M. Aparo]							
		CFE	\$450,700.00	\$317,433.00				

Title

The expert James Regula upgraded all twenty-two unattended monitoring systems (VIFM) at CANDU reactors in Canada with modems and Virtual Private Network connections to send state-of-health (SoH) files to the Safeguards Regional Office in Toronto (TRO). Two systems at one facility were equipped with a separate computer and an authentication card for a pilot test of the full remote monitoring (RM) transfer of safeguards data to the TRO. The remaining VIFM cabinets will be migrated to RM mode, when the pilot test is finished successfully. Mr. Regula continues linking additional DMOS units for SoH transfers in Canada and Japan, writing cost benefit analysis for sites in Romania and Slovakia, and troubleshooting remote systems in the field from Vienna.

Comments

Monday, February 07, 2005 Page 31 of 44

		Title				
TaskID E.130	Subtas	[Agency# / Task Officer] (Integrated Safeguard System for SF Conditionin Facility (Part 2/3 of Chernobyl Transfer and Conditioning Campaign) [USA E 1361 / G. Ingrao]	_	Total Budget	Total Spen	t Comments
	E.130.01		LANL	\$1,305,000.00	\$1,256,704.0	The progress of this task is described under E.122.11: "URM Systems Standardization and Support - Generic Software Components for Chernobyl Conditioning Facility." The remaining scope of this task involved development of software components for the spent fuel conditioning facility at Chernobyl. The IAEA decided that the remaining scope was of a general nature and applicable to the IAEA's unattended and remote monitoring systems. Therefore, it was more compatible with the scope of POTAS Task E.122, and was reclassified under that task. This subtask is complete.
	E.130.01		Sonalysts	\$331,227.00	\$324,680.0	The installation of the Integrated Monitoring System for the Chernobyl Conditioning Facility (IMCF) could occur as late as 2009, due to construction delays at the Chernobyl Conditioning Facility. The IAEA proposed, and the USSP agreed, that the instrumentation components of the IMCF system can be used for other purposes, on the condition that the IAEA is responsible for replacing the equipment and reestablishing the IMCF when the Conditioning Facility is commissioned. The Chernobyl Nuclear Power Plant (ChNPP) requested that the IAEA remove the MMCT from railcar #2 at Chernobyl, so that ChNPP could overhaul the railcar. The IAEA removed its equipment in October 2004. SNL and Aquila soon will begin modifying the MMCT design to reflect changes requested by the IAEA. A modified version of the MMCT should be available in the second quarter of 2005. If the new MMCT is not available before the IAEA must reinstall the MMCT on railcar #2, they will install the original MMCT and then replace it when the new MMCT is ready.
E.131	E.131.04	Testing/Evaluation Programme for Unattended Monitoring and Surveillance System's Compute Software Operating System [USA E 1370 / G. Rengarajan]	r LANL	\$86,900.00	\$74,400 .0	MIC/Windows XP Certification - This task was completed concurrently with the UNARM Baseline 1 effort. The test report (LA-UR 04-7944) will be distributed in the documentation package for UNARM Baseline 1 in early December 2004. This task is complete.

Monday, February 07, 2005 ⁴Q Page 32 of 44

TaskID E.133	Title Subtas [Agency# / Task Officer] 2002 Factory Support for DIS [USA E 1108 / V. Popescu]	Organizatio	Total Budget	Total Spent
		Aquila	\$814,000.00	\$463,573.00
	E.133.01	Aguila	\$155,000.00	\$326.842.00

Kent Brown and Anthony Gonzales continued to provide factory support for the IAEA's existing Digital Imaging Surveillance (DIS) systems. Mr. Brown is providing technical assistance for SDIS validation testing. He set up and is testing GARS hardware platforms for field use. Mr. Brown is defining requirements for the upgrades of GARS to include review of the FAST system, as well as the possibility for review of the Digiquad system. Initial planning to process GARS surveillance data on the SG LAN has been started. Mr. Brown traveled to Belgium to gather information concerning Euratom's Digiquad system and to determine how it can be upgraded and the data reviewed by the IAEA. He installed one ALIS and one ALIP system. Mr. Gonzales continued testing and upgrading DIS equipment for field use. He is providing liaison support with the factory for DCM 14 upgrades. Mr. Gonzales created procedures for inspector field replacement of DCM 14 backup batteries. He will participate in the implementation of the replacement program. Mr. Gonzales performed implementation testing of new DSOS recording unit firmware.

Comments

Monday, February 07, 2005
Page 33 of 44

TaskID E.134	Subtas	Title [Agency# / Task Officer] Mobile Safeguard System for SF Transportati Chernobyl NPP to Conditioning Facility [USA E 1375 / G. Ingrao]	Organizatio on from	Total Budget	Total Spent	Comments
			IAEA	\$60,000.00		Aquila evaluated Luna 2 encryption tools on behalf of the IAEA. The IAEA decided to use another approach. Aquila finalized their report and provided it to the IAEA. This activity is complete.
	E.134.01		SNL	\$807,000.00		SNL submitted a proposal for upgrading the existing MMCT systems in accordance with the IAEA's request. The SSTS approved the necessary funding in October. A new POTAS Work For Others contract at SNL is being established, including a NEPA determination for the work that will be conducted on site at Chernobyl. Work will begin on this task, as soon as the contract has been approved.
	E.134.02		LANL	\$257,000.00		Final versions of software required for the MMCT were delivered to the IAEA as part of Baseline 1 on December 1, 2004. Testing of software and updating of associated documentation for MMCT systems was completed. A summary report of MMCT tests and activities will be provided at the end of January 2005. Testing of software on the MMCT system in Albuquerque, New Mexico, will be completed early in 2005.
	E.134.03		Aquila	\$121,250.00		The approved scope of work for Aquila is complete. ISPO received a request from the IAEA for an upgrade to the two existing MMCT systems. Aquila submitted a proposal in August. The SSTS approved funding at its October 8 meeting for the MMCT upgrade. ISPO is processing a contract for Aquila through BNL. The contract will be placed in January.
E.135		Safeguards Systems for Chernobyl SF Long Storage (Part 3/3 of Chernobyl Transfer and Conditioning Campaign) [USA E 1376 / G. Ingrao]	Term Dry			
	E.135.01		LANL	\$3,923.00		There has been no activity reported for this quarter. Funding for this task has been directed to other projects.

Monday, February 07, 2005 ⁴Q Page 34 of 44

TaskID E.137	Subtas	Title [Agency# / Task Officer] Next Generation Camera Module and Server-E Surveillance Systems [USA JNT E 1437 / J. Whichello]	Organizatio Based	Total Budget	Total Spent	Comments
			Sonalysts	\$85,000.00	\$129,687.0	0
	E.137.01		Sonalysts	\$107,500.00		Colin Carroll (Sonalysts) assisted Max Aparo (IAEA) in preparing a presentation for the various Agency review committees responsible for approving the NGSS procurement. After the NGSS was approved, Mr. Carroll prepared a model contract that the Agency could use as the basis for the NGSS contract. Mr. Carroll worked with the Agency to modify the contract as necessary, to meet the needs of the different project stakeholders. He prepared for a project kickoff meeting, which will be scheduled as soon as possible after the NGSS contract signing.
	E.137.02		IAEA	\$160,000.00		The Next Generation Camera Module and Server-based Surveillance System (NGSS) was approved by the Procurement Authorization Committee (PAC) at the IAEA on December 9, 2004. IAEA procurement will start working with Aquila and Dr. Neumann Consultants (DNC) to implement a tripartite contract, regulating the prime-sub relationship between Aquila and DNC, while allowing for two different funding sources (German Support Program for DNC, and USSP for Aquila).
E.138		Expert - Engineer Support for UMS Unit in TIE [USA E 1462 / M. Aparo]	İ			
			CFE	\$216,100.00		0 The expert Bernard Wishard traveled to Cernavoda in Romania to consult with the Facility Operator on the upcoming installation of full

consult with the Facility Operator on the upcoming installation of full VIFM and DMOS systems with remote monitoring connections at Unit II. Unit II is currently under construction. It is scheduled to receive an initial core in 2006. Mr. Wishard assisted in the drafting of the 2004 Annual Report and the Strategic Equipment Development Plan (2005-2010). Mr. Wishard accepted the position of Unit Head for Unattended Monitoring Systems in the Section for Installed Systems in December. This task is complete.

TaskID E.139	Title Subtas [Agency# / Task Officer] Expert - Digital Image Surveillance, Unattender Monitoring System Integration and Remote Mo Systems Engineer [USA E 1463 / M. Aparo]		Total Budget	Total Spent	Comments
		CFE	\$194,900.00	tes wa tra of cui tra ma aci	e expert Lee ReFalo traveled to Rokkasho for security, set up, and sting of the ISVS (spent fuel pond) system. Testing of the systems is completed successfully at the local cabinet level. Mr. ReFalo veled to Sellafield in support of a TREN (formerly EURATOM) upgrade an integrated coincidence counter, gamma spectrometry, eddy rrent bar code reader, and multiple neutron slab detector system. He veled to the Ignalina Nuclear Power Plant in Lithuania for aintenance and to gain a better understanding of the fuel transfer tivity, which is planned to start in 2006. Mr. ReFalo traveled to inford for calorimeter and surveillance service.
E.140	Enhancement of Cobra Fibre Optic Seal System [USA E 1475 /]	n			
	[00/12 14/07]	IAEA	\$143,000.00	\$0.00	
			4 ,	Aq Se sei Nil for an	uila completed Phase I of the Enhancement of the Cobra Fiber Optic al System in November 2004, with the demonstration of a laboratory tup of the AutoCobra verifier to George Weeks (the IAEA task officer). colai Khlebnikov (the Director of the Division of Technical Support) warded a letter to the US Support Program in December 2004, nouncing the IAEA acceptance of Phase I and requesting funding for ase II.
E.141	Vulnerability Assessment of the FAST Surveille System Information Security Features	ance			
	[7]	SNL	\$25,000.00	\$7,793.70	
			, ,,,,,	Th re	e approved scope of work for this task has been completed. The task mains open, pending a decision by the IAEA whether to request a mplete vulnerability assessment on the FAST surveillance system.
E.142	Vulnerability Assessment of EOSS and IRES Electronic Seals				
	[USA E 1509 / M. Goldfarb]	SNL	\$177,000.00	\$0.00	
		O.V.E	ψ177,000.00	SN Ag as: eq Da	IL and the German government have completed the Non-Disclosure reement required for SNL to proceed with the vulnerability sessment. Don Glidewell (SNL) negotiated with the IAEA and the uipment developers to provide necessary materials and equipment. Ites for the initial review meeting in Vienna have been discussed with a developer and the IAEA. SNII is waiting for efficiel approval to start

Monday, February 07, 2005 ⁴Q Page 36 of 44

the developer and the IAEA. SNL is waiting for official approval to start

the work.

TaskID F.027	Title Subtas [Agency# / Task Officer] Consultants - Quality Assuranc [USA C 1017 / D. Neal]	Organizatio ce	Total Budget	t Total Spent Comments	Comments	
	F.027.06	IAEA	\$291,200.00	\$218,506.00 Gassim Cherif has applied to the Software Engineering Institute (SEI) take several courses. SEI and the IAEA Legal Division are negotiating the terms of the training contract.	Gassim Cherif has applied to the Software Engineering Instake several courses. SEI and the IAEA Legal Division at	` ,
F.032	Consultant - Services Safeguar	rds Issues (R. Hooper)				
		IAEA	\$525,336.87	7 \$436,517.00	ı	
				The consultant Richard Hooper developed and annotated two extensi presentations entitled: "Strengthened and Integrated Safeguards" and "The Legal Framework of IAEA Safeguards," which have been used be the IAEA. Mr. Hooper began a complete revision and annotation of the presentation material for the Strengthened Safeguards Seminar. The SSTS approved funding in December for a continuation of Mr. Hooper consulting arrangement with the IAEA. His contract will continue to be administrated through the IAEA.	presentations entitled: "Strengthened and Integrated Safe "The Legal Framework of IAEA Safeguards," which have the IAEA. Mr. Hooper began a complete revision and ann presentation material for the Strengthened Safeguards Se SSTS approved funding in December for a continuation of consulting arrangement with the IAEA. His contract will consulting arrangement with the IAEA.	eguards" and been used by lotation of the eminar. The f Mr. Hooper's
F.036	Fixed Term Assistant - Procure	ement Services				
	[/]	10.50	#	0.00		
S.020	Assistance to IAEA by U.S. Εχρ	IAEA	\$228,000.00	The expert Philip Beauparlant is continuing to manage and support th IAEA's contract with AWST for the Integrated Inspector Information System (I3S). Mr. Beauparlant is in the process of amending the contract to incorporate full funding, as well as requesting a proposal from AWST. He implemented the release of the NDAR subsystem Request for Proposal to AWST. Mr. Beauparlant is waiting for contractor response and subsequent PAC review. Negotiations for PIMS efforts with BNFL has been finalized. Mr. Beauparlant reworker Scope of Work/Specification for the JNFL Project, to add scope to Phase 2 of the Cap Gemini effort on I3S. A Request for Proposal was released and is awaiting PAC review. Amendment No. 1 for the increased scope for I3S with Cap Gemini has been finalized. Mr. Beauparlant visited referenced company sites during the Implementation Phase of the ISIS Reengineering Project. He present the IRP procurement to the PAC. The PAC recommended approval the IRP. A draft contract was written and is in review within both the Procurement Services Section and the Office of Legal Affairs. Mr. Beauparlant processed about fifteen safeguards-related procurement in support of the fiscal year end.	The expert Philip Beauparlant is continuing to manage and IAEA's contract with AWST for the Integrated Inspector Inf System (I3S). Mr. Beauparlant is in the process of amend contract to incorporate full funding, as well as requesting a from AWST. He implemented the release of the NDAR su Request for Proposal to AWST. Mr. Beauparlant is waiting contractor response and subsequent PAC review. Negotic PIMS efforts with BNFL has been finalized. Mr. Beauparlast Scope of Work/Specification for the JNFL Project, to add sephase 2 of the Cap Gemini effort on I3S. A Request for Preleased and is awaiting PAC review. Amendment No. 1 from the Implementation Phase of the ISIS Reengineering Project. The IRP procurement to the PAC. The PAC recommende the IRP. A draft contract was written and is in review with Procurement Services Section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement processed about fifteen safeguards-related procurement processed about fifteen safeguards-related procurement services and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services are safeguards-related procurement services and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about fifteen safeguards-related procurement services section and the Office of Legal Affa Beauparlant processed about f	formation ding the a proposal ubsystem g for ations for ant reworked a scope to Proposal was for the ed. Mr. He presented ad approval of in both the airs. Mr.
	[USA X 941 / J. Cooley]	ICDO	ΦΕΩ 7 000 00	0.04740.45		
		ISPO	\$507,000.00	\$494,748.45 This task was used to provide travel funding for consultants to the IAE by various US government officials and experts. This task is on stand	This task was used to provide travel funding for consultant	

Monday, February 07, 2005 4Q

	Title				
TaskID	Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent Comments	
S.026	The Design and Development of an Orienta for U.S. CFEs and IAEA Staff	tion Course			
	[USA X 943 /]	1000	# 005 407 00	Фоот 407 оо	
		ISPO	\$395,487.00	\$395,487.00	::: O-: t-
				A contract for the update of the "Guidebook for U.S. Ci Work for the IAEA in Safeguards" was awarded to the Anderer and Greg Gerrein. ISPO approved a delay in to illness.	team of Jeanne
S.036	Integrated Safeguards Consultations				
	[USA X 1315 / L. Gourgon]				
		BNL/NCT	\$799,245.00	\$787,325.00	
				Work continued on the evaluation of integrated safegu- for the transfer of spent fuel from reactors to difficult-to locations. The report for this task is anticipated to be of the next quarter.	-access storage
		ISPO	\$32,349.00	\$32,349.00	
		LLNL	\$12,300.00	\$12,300.00	
		ORNL	\$33,875.00	\$33,875.00	
		PNNL	\$25,000.00	\$24,505.00	
		SNL	\$9,894.51	\$9,894.51	
S.037	ISPO Recruitment Program [USA X 942 /]				
		ISPO	\$276,422.00	\$276,521.00	
				Susan Pepper (ISPO) and Cathy Osiecki (Office of Ed at BNL) attended the Society of Women Engineers Na	

held in Milwaukee, Wisconsin, from October 14 to 16. Donna Occhiogrosso (ISPO) and Cathy Osiecki attended a Job Fair, held at Columbia University in New York City on November 5. Students for one-year internships and engineers for Staff or Junior Professional Officer vacancies were sought at both events.

Al Queirolo (ISPO) and Donna Occhiogrosso attended the Interagency Task Force meeting on American Citizen Recruitment, held at the State Department on November 18. The meeting was arranged to discuss actions taken for the recruitment of US citizens and to bring up any mutual concerns or suggestions regarding the recruitment process.

ISPO prepared and is distributing a brochure highlighting IAEA Employment Benefits.

TaskID S.049	Title Subtas [Agency# / Task Officer] IAEA Travel for US Support Program Tasks [USA X 1306 / A. Hamilton]	Organizatio	Total Budget	t Total Spent Comments
	[coxxx rece, ru nammen]	IAEA	\$1,366,524.00	This task provides funding to the IAEA for task-related travel. The SSTS responds to quarterly travel projections prepared by the IAEA's Support Program Administration.
S.053	Non-Proliferation and Disarmament (NDF) Fu SG Equipment [USA X 1342 / B. Bartsiotas]	nding for		
		ISPO	\$3,106,000.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2000. The NDF approved funding in 2000 for the procurement by the IAEA of geospatial laboratory and digital image surveillance equipment.
S.057	USVC Funding in 2001 for SG Equipment [USA X 1393 / B. Bartsiotas]	IAEA	\$10,178,000.00	O \$8.166.316.74
		<u></u> -	4 .0,0,000.00	This task was established to track the IAEA's expenditure of funding provided in the 2001 US Voluntary Contribution for the procurement of Safeguards equipment.
				Procurement of Solution Monitoring Systems for the Rokkasho Reprocessing Plant (RRP) - The IAEA issued the certificate of completion and made the final payment to NAC. NAC is still supporting the IAEA under the warranty terms of the contract but the systems have been running for some time. The IAEA is collecting data and working on the data analysis software. This subtask is complete.
S.060	Contracts Labor Charge [/]			
		ISPO	\$161,707.00	This task provides funding for the labor charges that are incurred by the BNL Procurement and Property Management Division, while executing contracts and purchase orders for USSP tasks.
S.061	2002 U.S. Voluntary Contribution for Safegua Equipment [/ B. Bartsiotas]	ırds		
		IAEA	\$6,634,575.73	\$5,172,662.81 This task was established to track the expenditure of the 2002 US Voluntary Contribution for Safeguards equipment.

Monday, February 07, 2005 ⁴Q Page 39 of 44

TaskID S.062	Title Subtas [Agency# / Task Officer] ISIS Reengineering [USA D 1430 / A. Reynaud]	Organizatio	Total Budget	Total Spent Comments	
		IAEA	\$7,307,229.00	\$358,741.00 This task was established to track US Voluntary Contributions to ISIS Reengineering Project. The IAEA is reviewing bids and interviewing contractors.	the
	S.062.01	IAEA	\$375,231.00	\$254,108.26	
				"Development of the NPT Accounting Enhancement Software Syshas been accepted informally by the IAEA. CGE&Y is fixing mind bugs. The IAEA and CGE&Y developed a list of software modifications. The IAEA requested that the USSP provide funding the immediate implementation of three of them. ISPO conducted phone poll at the end of December that resulted in the authorization use funding set aside for the ISIS Reengineering Project (IRP) for modifications. The three modifications are: consolidation and grouping of business rules in a script file, production of reports the allow comparison of the data on the mainframe and on the staging database, and streamlining and improvement of the correction cythe NPT Accounting records on the mainframe. The remainder of modifications will be implemented in conjunction with the IRP.	or ng for d a ion to or the nat will ng
S.065	NDF 2002				
S.066	2003 USVC for Safeguards Equipment	IAEA	\$4,155,000.00	\$1,918,004.00 This task was established to track the expenditure of funding proventhrough the Nonproliferation and Disarmament Fund (NDF) in 200 NDF approved funding for high priority NDA and surveillance equals to the province of the control of	02. The
	[/]	IAEA	\$7,700,000.00	\$1,305,496.54 This task was established to track the IAEA's expenditure of fund provided in the 2003 US Voluntary Contribution for the procureme Safeguards equipment.	

Monday, February 07, 2005 Page 40 of 44

TaskID S.068	Subtas	Title [Agency# / Task Officer] Information and Communication Technology Conference [/]	Organizatio	Total Budget	Total Spent	Comments
			ISPO	\$20,000.00		The IAEA SGIT Workshop concluded on October 8 with a presentation of preliminary workshop findings and recommendations. Dr. Robert Gallucci (Georgetown University), Dr. David Jensen (University of Massachusetts at Amherst), Dr. Lee Giles (Pennsylvania State University) and Mr. Allen Locke (private consultant) attended the workshop under funding from ISPO. The final report of the meeting is in preparation.
			LANL	\$10,000.00	\$11,200.00	
						Jim Gattiker (LANL) attended the IAEA SGIT workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. Mr. Gattiker made a presentation on several LANL technologies for modeling complex systems, data analysis, data discovery, and data mining. The presentation included a description of GENIE, an analyst-oriented tool developed and used at LANL for search and classification of features in imagery.
			LLNL	\$10,000.00	\$0.00	
						William Domke (LLNL) participated in the IAEA SGIT workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. Mr. Domke presented a case study on procurement networks.
			ORNL	\$10,000.00	\$9,925.00)
						Robert Patton (ORNL) attended the IAEA SGIT workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. Mr. Patton made a presentation entitled: "Gaining Knowledge through Information Fusion and Adaptive Sampling," which described the use of intelligent software agents to acquire, analyze, and fuse information from various sources. The presentation included the use of adaptive sampling on Foreign Broadcast Information Service (FBIS) text data to generate a sample of documents that are representative of the diversity of the entire set of documents. Mr. Patton participated in the workshop's scenario-based analysis of current technologies for use by IAEA SGIT.
			PNNL	\$10,000.00	\$11,442.00)
						Dennis McQuerry attended the IAEA SGIT workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. Mr. McQuerry made a presentation on visualization-based analytical tools. He helped to assemble the initial findings and recommendations for the workshop report.

TaskID	Title Subtas [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
		SNL	\$10,000.00	\$0.00 J \ K M a	loyce van Berkel and Nabeel Rahal (SNL) participated in the IAEA SGIT Workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. Ms. van Berkel organized and assembled the initial workshop findings and recommendations. Mr. Rahal presented an overview and comparative study of information visualization tools.
		Sonalysts	\$85,000.00	w K T tt e p te s a a n d g s s s e e o e	Colin Carroll and Donald Estes (Sonalysts) facilitated the IAEA SGIT workshop entitled: "Information Technology: Turning Information into Knowledge," held during the week of October 4, 2004, in New York City. The workshop focused on identifying existing or emerging technologies that IAEA information analysts could use to improve their efficiency and effectiveness. About fifty technical experts from the IAEA and various public and private companies participated in the workshop. The exchnical experts discussed short-term and long-term technology solutions. Short-term solutions addressed technologies which are available on the market today that the Agency could implement quickly and easily. Long-term solutions included technologies which would need to be modified to meet the IAEA's needs or which are still in the elevelopment stage and not available on the commercial market. The group drafted a report at the conclusion of the workshop that the ammarized the discussions and recommendations made in the elevitors. The group identified other issues that are not technology elated, but if pursued could improve the IAEA's efficiency and effectiveness. Sonalysts will finalize the draft report in the first quarter of 2005. After reviewing it with the IAEA, Sonalysts will distribute it to the workshop participants for review and comment.
S.069	2004 USVC for Safeguards Equipment [/]				
		IAEA	\$4,359,600.00	р	This task was established to track the IAEA's expenditure of funding provided in the 2004 US Voluntary Contribution for the procurement of Safeguards equipment.

Monday, February 07, 2005 4Q Page 42 of 44

TaskID S.070	Subtas	Title [Agency# / Task Officer] Support to the IAEA's Office of Internal Overs an Evaluation of the Effectiveness of Member Support Programs Within the Safeguards Dep	State	Total Budget	Total Spent	Comments
		[/]	Sonalysts	\$39,566.00	Services (OIOS)), ai Evaluation Team. T effectiveness of the was held in Vienna i analyzed data gathe data package contai MSSP Representati search results, and the evaluation's goa conclusions, and rec and Head of the Su (SPA Coordinator) forwarded to the SP 21, 2004. SPA will I reviewing the SPA o copy of the report w Safeguards and to I	ysts), Kamal Araj (IAEA Office of Internal Oversight and Sergio Guardini are members of the MSSP he goal of the MSSP evaluation is to assess the Agency's MSSP management. A working meeting an December 2004. The Team synthesized and ared during earlier phases of the evaluation. The ned notes from interviews with Agency staff and wes, MSSP Coordinator survey results, document case studies. The Team drafted a report, detailing ls, the work processes, and the findings, commendations. Nikolai Khlebnikov (Director SGTS pport Program Administration) and Andrew Hamilton were briefed. A copy of the draft report was A managers for review and comment on December provide written comments by January 8, 2005. After comments and revising the report as appropriate, a sill be sent to the Deputy Director General for Department of Safeguard Division Directors for review
S.071		NDA Training Course Relocation			and comment. The	Team plans to publish the report by March 2005.
		[/]	IAEA	\$5,000.00	the relocation of the to LANL, Argonne N	I funding for the IAEA to participate in site visits for LANL NDA course for IAEA inspectors. Site visits ational Laboratory - West, and Savannah River are planned for January 2005.
			ISPO	\$36,000.00	\$0.00	funding for ISPO to participate in site visits to
			LANL	\$24,000.00	•	which are planned for January2005.
			LAINL	ψ 2 +,000.00	LANL is assisting th	e SSTS and ISPO in the evaluation of candidate NDA course, traditionally held at LANL.
			SRNL	\$4,000.00	to evaluate their site	I funding for SRNL to host a visit by ISPO and DOE for the NDA course for IAEA inspectors. A site ned for January 2005.

Monday, February 07, 2005 Page 43 of 44

TaskID W.001	Title Subtas [Agency# / Task Officer] Work For Others [/]	Organizatio	Total Budget	Total Spent	Comments
		LANL	\$28,740.00		sk is used to reclaim funding from completed tasks at LANL. ading will be redirected to new activities at LANL.
W.003	Work for Others [/]				
		ORNL	\$38,283.24	complet	sk is used to reclaim Work for Others fees and funding from ted tasks at ORNL. This funding will be redirected to new s at ORNL.

Monday, February 07, 2005 ^{4Q} Page 44 of 44